

IN THE CLAIMS:

Claims 1 - 8, 12 - 17, 21, 24, 27 - 28, 31 - 33, and 36 have been amended.

Claims 9 - 11, 22 - 23, 29, and 34 - 35 have been cancelled. Claims 37 - 39 have been added.

1. (currently amended) An audio system comprising:

an audio device;

a computer for creating computer audio data and control data for operating the audio device; and

a data transmission [[means]] bus for linking the audio device and the computer together to transmit data therebetween,

wherein said computer has an output for outputting the computer audio data and the control data to the audio device via the data transmission [[means]] bus,

and wherein said audio device includes

a first system portion for processing audio source audio data that is provided by an audio source other than the computer,

a second system portion for processing the computer audio data created by the computer, [[and]]

~~mixing means~~ a mixing circuit for performing mixing of the audio source audio data and the computer audio data, which are respectively processed by the first and second sound system portions, and

wherein said audio device, including the first system portion and the second system portion, and said computer are located in separate devices, the separate

devices being capable of operating independently.

2. (currently amended) An audio system comprising:

an audio device;

a computer for creating computer audio data and control data for operating the audio device; and

a data transmission ~~[[means]]~~ bus for linking the audio device and the computer together to transmit data therebetween,

wherein said computer has an output for outputting the computer audio data and the control data to the audio device via the data transmission ~~[[means]]~~ bus,

and wherein said audio device includes

C a first system portion for performing signal processing on the computer audio data from the computer, or for performing the signal processing on audio source audio data of an audio source different from the computer audio data, or the audio source audio data selectively provided by one of a plurality of audio sources different from the computer,

a second system portion for performing simple signal processing, which is simple as compared with the signal processing of the first system portion, on the computer audio data created by the computer,

~~mixing means~~ a mixing circuit for performing mixing of the audio source audio data and the computer audio data, which are respectively processed by the first and second system portions, and

~~means~~ a switch for turning off the mixing of the ~~mixing means~~ mixing circuit when the first system portion performs the signal processing

selectively on the computer audio data of the computer, and

wherein said audio device, including the first system portion and the second system portion, and said computer are located in separate devices, the separate devices being capable of operating independently.

3. (currently amended) An audio system according to claim 1, wherein the computer further includes

~~display means~~ a display unit for displaying an operation panel for operating the audio device,

[[means]] a serial bus interface for outputting the control data to an audio device via the data transmission [[means]] bus on the basis of operation of the operation panel,

[[means]] a control data processing unit for receiving information regarding operation made by the audio device via the data transmission [[means]] bus as the control data so as to reflect the control data in content of the operation panel, and

[[means]] an audio data processing unit for outputting the computer audio data to the audio device via the data transmission [[means]] bus.

4. (currently amended) An audio system according to claim 2, wherein the computer further includes

~~display means~~ a display unit for displaying an operation panel for operating the audio device,

[[means]] a serial bus interface for outputting the control data to the audio device via the data transmission [[means]] bus on the basis of the operation of

the operation panel,

[[means]] a control data processing unit for receiving information regarding operation of the audio device via the data transmission [[means]] bus as the control data so as to reflect the control data in content of the operation panel, and

[[means]] an audio device processing unit for outputting the computer audio data to the audio device via the data transmission means.

5. (currently amended) An audio system according to claim 1, wherein the data transmission [[means]] bus is configured by a single serial bus cable and its interface.

6. (currently amended) An audio system according to claim 2, wherein the data transmission [[means]] bus is configured by a single serial bus cable and its interface.

7. (currently amended) An audio system according to claim 3, wherein the data transmission [[means]] bus is configured by a single serial bus cable and its interface.

8. (currently amended) An audio system according to claim 4, wherein the data transmission [[means]] bus is configured by a single serial bus cable and its interface.

Claims 9 - 11 (cancelled).

12. (currently amended) An audio system, comprising:
an audio device for producing first audio data in connection with at least one audio source,

an external serial bus [[means]], and
a personal computer, for creating second audio data and control data,
wherein the audio device is in a device separate from the personal
computer and the audio device performs mixing between the first audio data and
the second audio data, which is transmitted thereto via the external serial bus
[[means]], on the basis of the control data transmitted from the personal
computer, so that speaker [[means]] produces sound based on mixing results.

13. (currently amended) An audio system, comprising:

an audio device for producing first audio data in connection with at least
one audio source,

an external serial bus [[means]], and
a personal computer, for creating second audio data and control data,
wherein the audio device is in a device separate from the computer and
further includes ~~selection means~~ a selecting unit for selecting one of the first
audio data and the second audio data, which is transmitted thereto via [[an]] the
external serial bus [[means]], a signal processing [[means]] block for performing
signal processing on output of the ~~selection means~~ selecting unit, a first digital-
to-analog ~~conversion means~~ converter for converting output of the signal
processing [[means]] block to first analog signals, a second digital-to-analog
~~conversion means~~ converter for converting the second audio data from the
personal computer to second analog signals, and an analog mixing [[means]]
circuit for performing analog mixing between the first analog signals and the
second analog signals, whereby a speaker [[means]] produces sound based on

the result of the analog mixing.

14. (currently amended) An audio system according to claim 13,
wherein the audio device further comprises

a switch ~~[[means]]~~ for disconnecting the second digital-to-analog
~~conversion means~~ converter from the analog mixing ~~[[means]]~~ circuit when the
selection ~~[[means]]~~ unit selects the second audio data.

15. (currently amended) An audio system, comprising:

an audio device for producing first audio data in connection with at least
one audio source,

an external serial bus ~~[[means]]~~, and

a personal computer, for creating second audio data and control data,

wherein the audio device is located in a device separate from the
computer and further includes ~~selection means~~ a selecting unit for selecting one
of the first audio data and the second audio data, a signal processing ~~means~~
block for performing signal processing on output of the ~~selection means~~ selecting
unit, an ~~adjustment means~~ adjusting unit for performing adjustment on the
second audio data with respect to sampling parameters, a digital mixing
~~[[means]]~~ circuit for performing digital mixing between output of the signal
processing ~~[[means]]~~ block and output of the adjustment ~~[[means]]~~ unit, and a
digital-to-analog ~~conversion means~~ converter for converting a result of the digital
mixing to analog signals, and speakers ~~[[means]]~~ for producing the sound based
on the analog signals.

16. (currently amended) An audio system according to claim 12, wherein the external serial bus [[means]] corresponds to a universal serial bus.

17. (currently amended) An audio system according to claim 12, wherein the external serial bus [[means]] corresponds to an IEEE 1394 serial bus.

18. (original) An audio system according to claim 12, wherein the audio source corresponds to a tuner or a recording media.

19. (original) An audio system according to claim 12, wherein the personal computer uses graphical user interface (GUI) for creation of the control data for controlling operation of the audio device.

C 20. (original) An audio system according to claim 12, wherein the signal processing corresponds to a graphic equalizer process and / or a sound field control process.

21. (currently amended) An audio system, comprising:

an audio device;

a computer for creating computer audio data and control data for operating the audio device;

a data transmission [[means]] bus to allow communications between the computer and the audio device;

wherein said computer has an output [[means]] interface for outputting the computer audio data and the control data to the audio device via the data transmission [[means]] bus,

while said audio device is in a device separate from the computer and

includes

a first system portion including a selection ~~[[means]]~~ unit for selecting one of audio device audio data and the computer audio data, a signal processing ~~[[means]]~~ block for performing signal processing on output of the selection ~~[[means]]~~ unit, a first digital-to-analog ~~conversion means~~ converter for converting output of the signal processing ~~[[means]]~~ unit to first analog signals,

a second system portion including a second digital-to-analog ~~conversion means~~ converter for converting the computer audio data given from the personal computer to second analog signals, and

an analog mixing ~~[[means]]~~ circuit for performing analog mixing between the first analog signals and the second analog signals.

Claims 22 and 23 (cancelled)

24. (currently amended) An audio system, comprising:

a computer;

an audio device;

a data communications ~~[[means]]~~ bus for allowing communications between the computer and the audio device, wherein

said computer includes ~~[[means]]~~ a control data processing unit for outputting control data for controlling the audio device and for outputting audio data to the audio device via the data communications ~~[[means]]~~ bus based on the operation of an operation panel,

~~[[means]]~~ a display unit for displaying ~~[[an]]~~ the operation panel for controlling the audio device,

~~means for outputting the control data to the audio device via the data communications means based on operation of the operation panel;~~

[[means]] a serial bus interface for receiving information regarding operation of the operation panel via the data communications means as the control data, thus providing the control data to the operational panel; and

[[means]] an audio data processing unit for outputting the audio data to the audio device via the data communications means, wherein

said audio device includes a mixing [[means]] circuit for mixing the audio data supplied from the computer together with other audio data given from a different audio source,

wherein said audio device, including the mixing circuit, and said computer are located in independent and separate devices.

25. (previously presented) A control method for an audio device, comprising:
creating a graphic user interface for controlling the audio device to allow selection of an audio source with respect to an audio device and to allow mixing of audio data of the selected audio source together with other audio data created by a computer;

outputting control data to the audio device based on operation of the graphical user interface;

receiving information regarding operation of the graphical user interface as the control data, and providing the control data to the graphical user interface; and

outputting the audio data to the audio device.

26. (previously presented) A program code storage device, comprising:
a machine-readable storage medium; and
machine-readable program code, stored on the machine-readable storage medium, the machine-readable program code having instructions to
create a graphic user interface for controlling the audio device, to allow selection of an audio source with respect to the audio device, and to allow mixing of audio data of the selected audio source together with other audio data given from a computer;
output control data to the audio device based on operation of the graphic user interface;
receive information regarding operation of the graphic user interface as the control data, and provide the control data to the graphic user interface; and
output the audio data to the audio device.

27. (currently amended) The audio system of claim 1, wherein the data transmission [[means]] bus transmits digital data between the audio device and the computer, and the mixing [[means]] circuit is a digital mixing [[means]] circuit that performs digital mixing of the audio source audio data and the computer audio data.

28. (currently amended) The audio system of claim 2, wherein the data transmission [[means]] bus transmits digital data between the audio device and the computer, and the mixing [[means]] circuit is a digital mixing [[means]] circuit that performs digital mixing of the audio source audio data and the computer audio data.

Claim 29 (cancelled).

30. (previously presented) The audio system of claim 12, wherein the audio device performs digital mixing of the first audio data and the second audio data.

31. (currently amended) The audio system of claim 13, wherein the external serial bus [[means]] transmits the second audio data and the control data digitally.

32. (currently amended) The audio system of claim 15, wherein the external serial bus [[means]] transmits the second audio data and the control data digitally.

33. (currently amended) The audio system of claim 21, wherein the data transmission [[means]] bus transmits the computer audio data and the control data digitally to the audio device.

Claims 34 and 35 (cancelled)

36. (currently amended) The audio system of claim 24, wherein the data communications [[means]] bus allows digital communications between the computer and the audio device, and the mixing [[means]] circuit is a digital mixing [[means]] circuit for mixing the audio data supplied from the computer together with other audio data given from a different audio source.

37. (new) An audio system comprising:

an audio device;

a computer for creating computer audio data and control data for operating the audio device; and

a data transmission bus for linking the audio device and the computer together to transmit data therebetween,

wherein said computer has an output for outputting the computer audio data and the control data to the audio device via the data transmission bus,

and wherein said audio device includes

a first system portion for processing audio source audio data that is provided by a tuner unit integrated in the audio device,

a second system portion for processing the computer audio data created by the computer,

a mixing circuit for performing mixing of the audio source audio data from the tuner unit and the computer audio data, which are respectively processed by the first and second sound system portions, and

wherein said audio device, including the first system portion and the second system portion, and said computer are located in separate devices, the separate devices being capable of operating independently.

38. A(new) An audio system, comprising:

an audio device for producing first audio data in connection with at least one audio source,

an external serial bus; and

a personal computer, for creating second audio data and control data,

wherein the audio device is located in a device separate from the computer, and includes a tuner unit as a first audio source for producing the first audio data, a selecting unit for selecting one of the first audio data and the second audio data, a signal processing block for performing signal processing on output of the selecting unit, an adjusting unit for performing adjustment on the second audio data with respect to sampling parameters, a digital mixing circuit for performing digital mixing between output of the signal processing block and output of the adjustment device, and a digital-to-analog converter for converting

a result of the digital mixing to analog signals, and speakers for producing the sound based on the analog signals.

39. (new) An audio system, comprising:

an audio device;

a computer for creating computer audio data and control data for operating the audio device;

a data transmission bus to allow communications between the computer and the audio device;

wherein said computer has an output interface for outputting the computer audio data and the control data to the audio device via the data transmission bus,

while said audio device is in a device separate from the computer and includes

a tuner unit for producing audio device audio data;

a first system portion including a selection unit for selecting one of the audio device audio data and the computer audio data, a signal processing block for performing signal processing on output of the selection device, a first digital-to-analog converter for converting output of the signal processing device to first analog signals,

a second system portion including a second digital-to-analog converter for converting the computer audio data given from the personal computer to second analog signals, and

an analog mixing circuit for performing analog mixing between the first analog

C signals and the second analog signals.
